Work Order I				*961	187*						Page 1
Revision ID:	95-041 ket Assembly		A	Accept	*N900	040	100)* 5	Setup Star	I VI	S1* S2*
Start Date: 1/21/ Required Date: 2/08/ Reference:		d Qty: 6.00	*6* *6*		Cust Item II Customer:	D:				1 4	1 12
Approvals: Pro	cess Plan:		Date: 13-01-24	Tooling: SPC (Y/N):		te:		I	Run Star Stop	`` I\ I	R1* R2*
Sequence ID/ Work Center ID	Oper Desci	ation iption		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision N	lbr					· • • • • • • • • • • • • • • • • • • •				
D3195	Rev B										
*100 *100* Bandsaw Jeaspa Bandsaw	BAND	Memo	(0.75" x 2.00") x 3.60" long	0.00	K 13/02/C	,4	((o 🇳	Ø		
*110 *110* HAAS 1 HAAS CNC vertical mach		Memo	L MACHINING #1 3195-1 as per Folio FA334 ar	0.00 0.00 ad Dwg D3195Identify	F.K 13/02/1 as D3195-	04		6	<u>Ø</u>		·
120	QC2-	Inspect parts off r	nachine FAI/FAIB	0.00				,			
120		Memo		0.00	F. t. 13/02	104		_6_	Ø		

Quality Control

NCR: Y	es / No				WORK ORDER NON-O	CONFO	RMANCE / UI	PDATE			•
							•		QA Closed:	Date	•
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Part N					Rework . Scrap		Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.	Engineering Quality
NCR N					Use-as-is Work Order Update	The	ermoforming Large Fab	Finishing Composite	4	e/Packaging Supplier	Other
NCN			· · · · · · · · · · · · · · · · · · ·		Work order opudie	J	2d.gc . do		<u>.</u>		
Root				Descri	ption of work order update	Initia		Action	Sign &		
Cause	Date	Step	Qty	,	or Non-conformance	Chief E	ng Des	scription	Date	Verification	QC Inspector
Doc/Data						:					
Equip/Tooling						ļ				,	
Operator											
Material											
Setup							[
Other											
Process											
Supplier											
Training											
Unapproved						1					
						AULT CA	TEGORY				
Landin	ng Gear				General				_	_	·
ļ	Bending			_	Bend	Grai		_	Ovalized	-	Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route	\vdash	ware	<u> </u>	Over/Under	├	Temperature/Cure
	Cracks				Broken/Damaged	—	ection Incomplete	_	Part Incorre	<u></u>	Weld
]	Crushed/	Crimped			Burrs	-	uctions Incomplete	e/Unclear	Part Lost/M		Wrong Stock Pulled
	Cuffs				Contamination	Mai	ntenance		Part Moved		
į	Heat Tre	at		L	Countersink	Misl	abeled		Positioned		_
	Inspection	n Strip in	Tube	L	Cut Too Short	Misr	ead	·	Power Loss,	/Surge	Other
	Ripples in	n Bend			Drill Holes	Offs	et				
	Torque V	Vaves in I	Extrusio	n [Drawing	Out	of Calibration				
	Turning S	Sequence	!		Finish	Out	of Sequence				
	Wave/Tv	vist in Tu	be ·		Folio	Out	side Dimensions				

DQA: Date:

Powdercoat

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

6 H 13-2-11.

150

150

Powder Coating

0.00

NCR:	Yes	/	No
------	-----	---	----

NCR: Yes	/ No			WORK ORDER NON-	CON	IFORN	ANCE / UPD	ATE	•		i.j
								e- 100	QA Closed:	Date:	
Vork Order:			_	DISPOSITION	_			AGAINST DE	PARTMENT/	PROCESS	
Part No.				 Rework Scrap Use-as-is		ľ	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor e/Packaging	Engineering Quality Other
NCR No.	·			 Work Order Update]		Large Fab	Composite		Supplier	
Root Cause	Date	Step	Qty	ption of work order update or Non-conformance	1	nitial ief Eng	Actio Descri		Sign & Date	Verification	QC Inspector
perator laterial etup ther roccess upplier raining napproved											
				F	AUL	T CATE	GORY				
Landing			•	General					7		7- /-
	Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspection Ripples in Torque W	Crimped. It In Strip in I Bend Vaves in E	Tube Extrusion	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish		Instruct Mainte Mislabe Misread Offset Out of O	on incomplete ions incomplete/U nance led	inclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde		187		*961	187*						Page 3	
tem ID: Revision ID: tem Name:	D3195-041 Bracket Assen	nbly		Accept	*N900	040	100)* s	etup Star Stop	171	S1* S2*	
tart Date: Required Date: Reference:	1/21/13 2/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6* *6*		Cust Item II Customer:	D:				1 4 4	17	
Approvals:		in:	Date:			ite:		R	un Star Stop	, "I V I	R1* R2*	
Sequence ID/ Work Center II 60 *160* QC Quality Control	D	Operation Description QC3- Inspect Part Finish Memo		Set Up/ Run Hours 0.00 SM	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
170 * 1 7 		Small Fab Memo 1-Lightly San D3195A/RCc	nd bonding surface2-Bor ontact Cement <u>17/2</u>	0.00 0.00 ad D3195-5 into D3195-	l as per Dwg			6		13	T-02-2	20
180 *180* QC Quality Control		QC5- Inspect part comple	teness to step on W/O	0.00 C N 00.0	1) 20			6				

Quality Control

										DQA:	Date:	
NCR:	Yes / N)			WORK ORDER NON-C	100	NFOR	MANCE / UPE	DATE	•		f.
	,									QA Closed:	Date:	
					DISPOSITION			•	AGAINST DE	PARTMENT	PROCESS	•
Work Orde	er:	·····			Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part I	No.				Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
raici	···				Use-as-is	1		noferming	Finishing		re/Packaging	Other
NCR I	No.				Work Order Update	1	1110111	Large Fab	Composite	1100,000	Supplier	1
_						1		·	· <u></u>			
Root				Descri	ption of work order update	I	nitial	Act	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material										1		
Setup												
Other												
Process												
Supplier		9										
Training												
Unapproved	<u> </u>					<u> </u>						<u> </u>
						AUL	T CATE	GORY				
Landi	ng Gear				General		10		r	Ovalized	Γ	Pressure/Forced
	Bendir	_		~ 	Bend	\vdash	Grain		<u> </u>	4	+-la	-
	\vdash	Not Conce	ntric to	^{0/5} -	BOM/Route	-	Hardwa		<u> </u>	Over/Under		Temperature/Cure
	Cracks		ı	<u> </u>	Broken/Damaged	-	i '	ion incomplete		Part Incorre	 	Weld
		d/Crimped	١.	<u> </u>	Burrs	-	-	tions Incomplete/L	Uniclear	Part Lost/Mi Part Moved	issuig	Wrong Stock Pulled
	Cuffs			-	Countarial	-	Mainte		 	4	Mrana	
I	Heat T	reat		1	Countersink	1	Mislabe	eleu	1	Positioned V	vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord January-23-13				*961	87*						Page 4
Item ID: Revision ID: Item Name:	D3195-041 Bracket Asse			Accept	*N900	040	100)* s	etup Star Stop	1.71	S1* S2*
Start Date: Required Date Reference:	1/21/13 e: 2/08/13	Start Qty: 6.00 Req'd Qty: 6.00	*6' *6'		Cust Item I Customer:	D:					
Approvals:	Process P QC:		Date:	Tooling: SPC (Y/N):		ate:		R	tun Star Stoj	, "I V I	R1* R2*
Sequence ID/ Work Center 190 *100* Packaging Packaging	ID	Operation Description Identify as per dwg & St Memo	ock Location	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
²⁰⁰ *200*		QC21- Final Inspection	- Work Order Release	0.00				Mt.	s 13-	07 -	21

QC Quality Control Memo

0.00

MC2 13-05-51

pl 13-02-21

NCR:	/es	/ No				WORK ORDER NON-O	CON	NFORM	MANCE / UPD/	ATE			·
											QA Closed:	Date:	
Nork Orde	er:					DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
Part I	No.	-	7		·	Rework Scrap Use-as-is		ı	Skid-tube Machining nofcrming	Crosstube Small Fab Finishing		Water Jet J. Eng. Coor. e/Packaging	Engineering Quality Other
NCR I	۱o. ₋					Work Order Update			Large Fab	Composite		Supplier	
Root		·			Descri	ption of work order update	I	nitial	Actio		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descrip	otion	Date	Verification	QC Inspector
oc/Data quip/Tooling													
perator	П												
1aterial		:					1						
etup													
ther 🥆													
rocess				,									
upplier			1										
raining								•					
napproved													
						F	AUL	T CATE	GORY				
Landi	ng G	Sear			_	General		1			٦	_	
	Щ	Bending			<u> </u>	Bend	_	Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa		-	Over/Under	├	Temperature/Cure
	Ь—	Cracks			_	Broken/Damaged	<u> </u>	1	ion Incomplete	<u> </u>	Part Incorred	 	Weld
	Ь—	Crushed/0	Crimped.		<u> </u>	Burrs		4	ions Incomplete/Ur	nclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	\vdash	Cuffs				Contamination		Mainte			Part Moved		-
	⊢ ⊣	Heat Trea				Countersink	<u> </u>	Mislabe		<u> </u>	Positioned V		٦
	\vdash	Inspection	-	Tube	L	Cut Too Short	\vdash	Misread	d		Power Loss/	Surge	Other
	Щ	Ripples in			<u> </u>	Drill Holes	<u> </u>	Offset					
		Torque W			n	Drawing		4	Calibration	•			
		Turning So	equence		l	Finish	1	Out of !	Sequence			4	

Outside Dimensions

DQA: _____ Date: ___

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

January-23-13 1:14:00 PM

Work Order ID:

96187

Parent Item:

D3195-041

Parent Item Name:

Bracket Assembly

Start Date: 1/21/13

Required Date: 2/08/13

Start Qty: 6.00

Required Qty: 6.00

Comments:	IPP Rev:A New	Issue 05-11-08	JLM										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3195-5 Pad		Manufactured	No			100	Each	6.0000	1	6	FF	13-0) Z - Z
				Location GA . 8370	04	<u>Loc Qty</u> 6 6	<u>, Lo</u>	oc Code		6			
M6061T6B0.750X02.000 6061-T6 Bar .750 x 2.00		Purchased	No		_	170	f	20.6768	0.3	1.894737			
				Location MAT049		Loc Qty 20.676842		oc Code	. —				
				122 [°] 123		4.536842 16.14			10	895 F	: K_ 13	102/	04

NCR: Y	'es	/ No				WORK (ORDER NON-	CON	NFORM	MANCE / UF	PDATE				
												QA Close	d: Dat	e:	
Nork Orde	er:					DI	SPOSITION	_			AGAINST D	EPARTMEN	T/PROCESS		
Part N	lo						Rework Scrap Use-as-is		1	Skid-tube Machining noforming	Crosstube Small Fab Finishing		Water Jet od. Eng. Coor. ore/Packaging	Eng	Quality Other
NCR N	lo					Work	Order Update]		Large Fab	Composite	, Kecyst	Supplier	<u> </u>	Other
Root					Descr	iption of wor	k order update	Ī	nitial	A	ction	Sign &			
Cause		Date	Step	Qty		or Non-confo	ormance	Ch	ief Eng	Des	cription	Date	Verification	1 C	(C Inspector
oc/Data	\Box													j	
quip/Tooling	_														1
perator												İ			
1aterial	_														
etup														1	
ther	_													-	
rocess			:	,											
upplier															
raining	_							1						İ	
Inapproved		<u></u>													
								AUL	T CATE	GORY					
Landir	ng G	ear			_	_	eneral	_	,		_	¬ '		$\overline{}$	
		Bending			L	Bend			Grain		L	Ovalized		_	sure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Rout		<u></u>	Hardwa	re	_	Over/Und	er tolerance		perature/Cure
		Cracks				Broken/Da	maged	L	Inspect	ion incomplete		Part Incor	rect	Weld	
		Crushed/C	crimped.			Burrs			Instruct	ions Incomplete	e/Unclear	Part Lost/	Missing	Wror	ng Stock Pulled
		Cuffs			L	Contaminati	on		Mainte	enance		Part Move	ed		
		Heat Trea	t			Countersin	k		Mislabe	eled	Ĺ	Positione	d Wrong		
[Inspection	Strip in	Tube		Cut Too Sho	rt		Misrea	t		Power Los	ss/Surge	Othe	ır
		Ripples in	Bend			Drill Holes			Offset		_				
		Torque W	aves in E	xtrusio	n	Drawing			Out of	Calibration					
		Turning Se	equence			Finish			Out of	Sequence					
	_	Wave/Twi			<u> </u>	Folio			Outside	Dimensions					

DQA: _____ Date: _

Wave/Twist in Tube

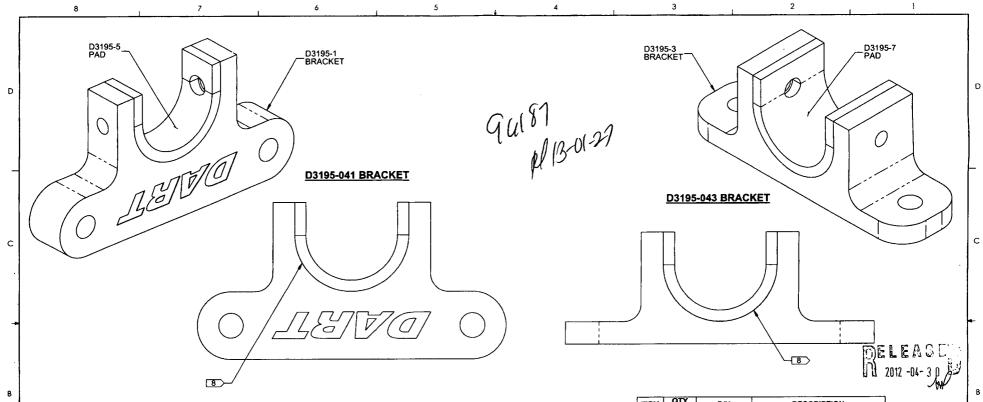
DART AEROSPACE LTD	Work Order:	94/87
Description: Bracket	Part Number:	D3195-1
Inspection Dwg: D3195 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.265	+/-0.010	1.263	7		FK-04	Venn.
0.242	+/-0.010	. 242	7		1,	<i>'</i> / ₂
1.084	+/-0.010	1.085	7		1,	I ₁
R0.200	+/-0.010	.200	7		R-G	
R0.377	+/-0.010	.377	>		l)	
Ø0.277	+0.005/-0.001	.277	7		FK-04	Vern.
2.677	+/-0.005	FF0,3	>		Й	n
3.4321	+/-0.010	3,432	7		(1	11
0.754	+/-0.010	.754	~		þ	fi .
1.387	+/-0.010	1.387	7		I.	0
0.500	+/-0.010	,500	7		f,	11
0.250	+/-0.005	.250	7		h	h
1.754	+/-0.010	1,754			11	ls
Ø0.191	+0.005/-0.001	. 191	7		J.	6

Measured by:	Measured by:		ont	Preliminary Approval:	
Date:	13/02/04	Date:	13/02/04	Date:	

Rev	Date	Change -	Revised by	Approved
Α	04.04.20	New Issue (P/O D412-702-011/-013)	KJ/RF	. 1
В	12.05.14	Dwg Rev updated	KJ SKY	
			7)	//



ITEM	QTY -041	P/N	DESCRIPTION	
	Х	D3195-041	BRACKET	
1	1	D3195-1	BRACKET	
2	1	D3195-5	PAD	

ITEM	QTY -043	P/N	DESCRIPTION	
	Х	D3195-043	BRACKET	
1	1	D3195-3	BRACKET	
2	1	D3195-7	PAD	

В	- ADDEC	ED DRAWING D NOTE 8, SHE 5 & D3195-7 D (C3-3) AR11-130	RP	12.04.13	
A	NEW ISSUE			CP	03.06.23
REV.		DESCRIPTION			DATE
DESIGN RP			DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAW	DRAWN RP				
CHECKED		A.P.	DRAWING NO.		REV. B
MFG. APPR.		13 A	D3195		SHEET 1 OF 3
APPROVED W		W	TITLE	SCALI	
DE APPR.		di-	BRACKET	NT:	
DATE 40.04.40			COPYRIGHT © 2003 BY DART AEROSPACE LTD		

NOTES: 1) MATERIAL: N/A 2) FINISH: N/A

2) FINISH: N/A
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3195-04X" AND BATCH NUMBER "BXXXXX" PER QSI044 METHOD 6.1
7) WEIGHT: D3195-041: 0.15 lbs
D3195-043: 0.14 lbs
8) BOND PAD TO BRACKET USING 3M SCOTCH-WELD HIGH PERFORMANCE 1300/1300L (OR EQUIVALENT)

8

7

6

DATE

12.04.13

2

